

# STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL DIVISION OF WATER RESOURCES

20653 DUPONT BLVD UNIT 5 GEORGETOWN, DE 19947

July 30, 2015

Sharon Cruz, PE Pennoni Associates Inc. 18072 Davidson Drive Milton, DE 19968

RE: Approval of the Zoeller 912, Packaged Lift Station. (W/ Model 264 sewage pump)

Dear Ms. Cruz,

The Division of Water Resources has received and reviewed your request to approve the Zoeller 921 packaged lift station; to be used in conjunction with Class B or other gravity fed onsite wastewater treatment and disposal systems designed in Delaware. We are pleased to inform you that we are able to <u>approve</u> the lift station referenced above, provided that they are installed in accordance with the manufacturer's requirements and specific permit conditions.

Additionally, specific components (brands, model numbers, etc...) should be listed on permit insert sheet. It also should be noted that this pre-engineered lift station is designed to be used in a 24" diameter basin 36" tall supplied as part of the package from Zoeller. As a condition of this approval, no substitution of components is allowed without written approval from the design engineer and pre-approval from the Department.

If you have any other questions please contact me at 856-4561.

Sincerely,

James Cassidy

Program Manager I

Ground Water Discharges Section

Cc: file



### 18072 Davidson Drive Milton, DE 19968

Ph. 302-684-8030 • Fx. 302-684-8054 www.pennoni.com

July 9, 2015

Mr. James Cassidy DNREC Division of Water Resources 20653 DuPont Boulevard, Unit 5 Georgetown, DE 19947 302-856-4561

Submitted Via Email: <u>James.Cassidy@state.de.us</u>

RE: Approval of the Zoeller 912 Package System Lift Station

Dear Mr. Cassidy,

Pennoni Associates Inc. (Pennoni) is requesting product approval for pre-engineered lift station, manufactured by Zoeller Pump Company. The lift station package will be utilized in conjunction with Class C designed on-site wastewater treatment and disposal system (Permit Number 229942) to overcome elevation differences from an existing septic tank retrofitted with advanced pre-treatment unit to proposed gravity fed drain field.

Specifications for the 912 Package System Lift Station and Pre-Construction As-Built Plan are provided as an attachment to this letter.

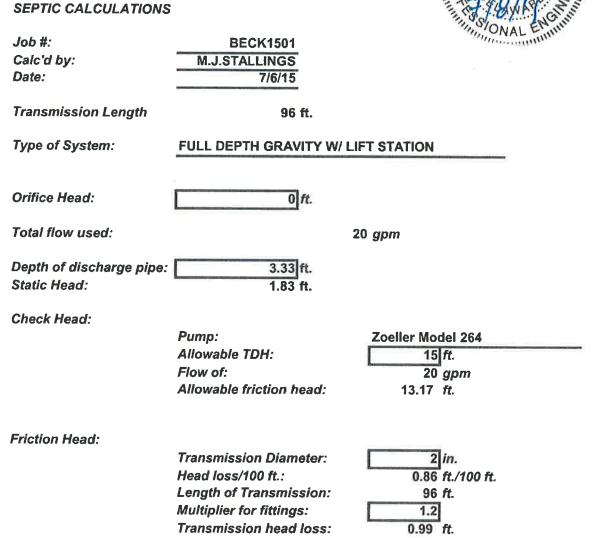
Should you have any questions or need additional information, please do not hesitate to call.

Respectfully Submitted,

Sharon K. Cruz, P.E. Project Engineer







Total friction head:

% of allow. frict. head:

TDH:

2.82 ft.

0.99 ft.

7.5

### Your Peace of Mind is Our Top Priority®

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



SECTION: 2.45.065 FM2810 0814 Supersedes 0114

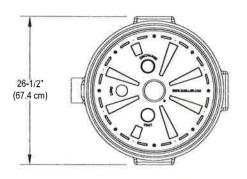
### TECHNICAL DATA SHEET

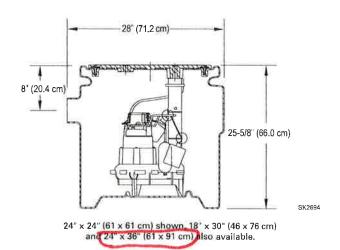
### 912 PACKAGE SYSTEMS

Preassembled sewage systems for fast installation.

### **PUMP SPECIFICATIONS**

|           | Voltage              | 115  |  |  |  |
|-----------|----------------------|--|--|--|--|
|           | Phase                | 1  |  |  |  |
| MOTOR     | Hertz                | 60   |  |  |  |
| 5         | RPM                  | 1400 or 2800   |  |  |  |
| ×         | Туре                 | Split phase or permanent split capacitor                       |  |  |  |
|           | Insulation           | Class B  |  |  |  |
|           | Amps                 | 4.4 - 8.5  |  |  |  |
|           | Operation            | Automatic  |  |  |  |
|           | Auto On / Off        | Varies based on package  |  |  |  |
|           | Discharge Size       | 2" NPT   |  |  |  |
|           | Solids Handling      | 2" (50 mm) spherical solids                                    |  |  |  |
| Æ         | Cord Length          | 20' (6 m) standard   |  |  |  |
| PUMP      | Max. Head            | 14' (4.3 m), 22" (6.7 m), 45.6' (13.9 m)                       |  |  |  |
|           | Max, Flow Rate       | 92 GPM (20.9 m³/hr), 106 GPM (24 m³/hr<br>149 GPM (33.8 m³/hr) |  |  |  |
|           | Max. Operating Temp. | 130°F (54°C)   |  |  |  |
|           | Cooling              | Oil filled   |  |  |  |
|           | Motor Protection     | Auto reset thermal overload                                    |  |  |  |
|           | Сар                  | Cast iron  |  |  |  |
|           | Motor Housing        | Cast iron  |  |  |  |
|           | Pump Housing         | Cast iron  |  |  |  |
| 10        | Base                 | Engineered plastic or cast iron                                |  |  |  |
| 2         | Upper Bearing        | Sleeve bearing   |  |  |  |
| A         | Lower Bearing        | Sleeve or ball bearing   |  |  |  |
| <b>H</b>  | Mechanical Seals     | Carbon/ceramic   |  |  |  |
| MATERIALS | Impeller Type        | Non-clogging vortex  |  |  |  |
| Σ         | Impeller             | Engineered plastic or bronze                                   |  |  |  |
|           | Hardware             | Stainless steel  |  |  |  |
|           | Motor Shaft          | 1215 cold rolled steel, 1144 steel or JIS<br>S45C steel        |  |  |  |
|           | Gasket               | Neoprene   |  |  |  |





#### **BASIN SPECIFICATIONS**

- Polyethylene basin
- Polyethylene structural foam cover with 2" vent and 2" discharge
- 41 gallon (155 liter) capacity (25 gallons [95 liters] below inlet)
- Integral foam seal

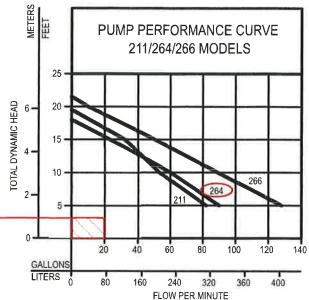




▲ WARNING These systems are not designed for hazardous environments. Please consult factory for special options and requirements.

### TOTAL DYNAMIC HEAD **FLOW PER MINUTE**

| МО       | DELS   | 211       |        | 264      |        | 20             | 66     |
|----------|--------|-----------|--------|----------|--------|----------------|--------|
| Feet     | Meters | Gal.      | Liters | Gal.     | Liters | Gal.           | Liters |
| 5        | 1.5    | 82        | 310    | 90       | 341    | 128            | 484    |
| 10       | 3.0    | 53        | 201    | 60       | 227    | 89             | 337    |
| 15       | 4.6    | 32        | 121    | 23       | 87     | 50             | 189    |
| 20       | 6.1    |           |        |          | 1.5    | 10             | 38     |
| Shut-off | Head:  | 19.5 ft.( | 5.9m)  | 18 ft.(5 | .5m)   | 21.5 ft.(6.6m) |        |

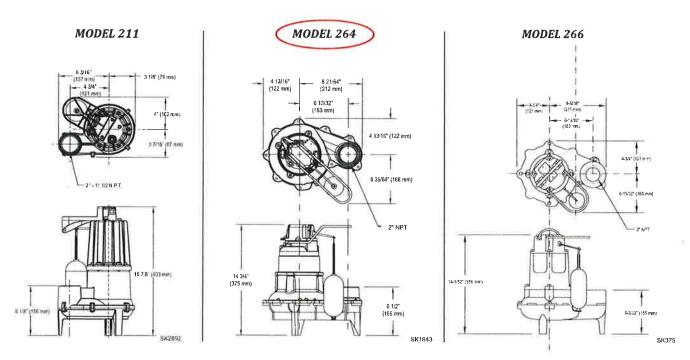


009969

**DESIGN OPERATING POINT** 

PUMP FLOW GATED TO 20 **GPM MAXIMUM** 

ACAUTION All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).



See FM2787 (model 211), FM2788 (model 264), FM2789 (model 266) for complete pump specifications.

| 2" Vent<br>P/N       | 3" Vent<br>P/N     | Pump                        | Basin Type Basin Type                       | Basin Size   | Weight<br>Lbs / Kg |  |
|----------------------|--------------------|-----------------------------|---|--|--------------------|--|
| 912-0073             | _                  |                             | PSF-Standard                                | 18" X 30" (45.7 x 76,2 cm)                               | 39 / 18            |  |
| * 912-0112           |                    | M211                        | Polyethylene                                | 24" x 24" (61 x 61 cm)                                   | 50 / 23            |  |
| * 912-1112           | -                  |                             | Polyethylene w/ Alarm                       | 24" x 24" (61 x 61 cm)                                   | 54 / 24            |  |
| 912-0007             | 912-0021           |                             | PSF-Standard                                | 18" X 30" (45,7 x 76,2 cm)                               | 56 / 25            |  |
| 912-1007             | -                  |                             | PSF-Standard w/ Alarm                       | 18" X 30" (45.7 x 76.2 cm)                               | 59 / 27            |  |
| 912-0006             | -                  |                             | Polyethylene-10' (3 m) stack                | 18" X 30" (45.7 x 76.2 cm)                               | 65 / 30            |  |
| 912-0061             | 777                |                             | PSF-Deluxe                                  | 18" X 30" (45.7 x 76.2 cm)                               | 59 / 27            |  |
| 912-0069             | -                  | M264                        | Polyethylene-w/ Integral Side Vent          | 18" X 30" (45.7 x 76.2 cm)                               | 50 / 23            |  |
| 912-0086             | =                  | IVI204                      | Premium PSF w/ AFD                          | 18" X 30" (45.7 x 76.2 cm)                               | 64 / 29            |  |
| 912-1086             | -                  | 1                           | Premium PSF w/ AFD & Alarm                  | 18" X 30" (45.7 x 76.2 cm)                               | 67 / 30            |  |
| * 912-0114           | ==                 |                             | Polyethylene                                | 24" x 24" (61 x 61 cm)                                   | 73 / 33            |  |
| * 912-1114           | =                  |                             | Polyethylene w/ Alarm                       | 24" x 24" (61 x 61 cm)                                   | 75 / 34            |  |
| * 912-0078           | -                  |                             | PSF-Deluxe                                  | 24" X 36" (61 x 91,4 cm)                                 | 82 / 37            |  |
| 912-0074             |                    | BN211 with                  | PSF-Standard                                | 18" X 30" (45,7 x 76,2 cm)                               | 39 / 18            |  |
| * 912-0113           | -                  | Piggyback<br>Variable Level | Polyethylene                                | 24" x 24" (61 x 61 cm)                                   | 50 / 23            |  |
| * 912-1113           |                    | Float Switch                | Polyethylene w/ Alarm                       | 24" x 24" (61 x 61 cm)                                   | 54 / 24            |  |
| 912-0005             | 912-0029           |                             | PSF-Standard                                | 18" X 30" (45.7 x 76.2 cm)                               | 56 / 25            |  |
| 912-1005             | -                  |                             | PSF-Standard w/ Alarm                       | 18" X 30" (45.7 x 76.2 cm)                               | 59 / 27            |  |
| ** 912-0016          |                    |                             | Fiberglass-10' (3 m) stack, LA code         | 18" X 30" (45.7 x 76.2 cm)                               | 78 / 35            |  |
| 912-0055             | -                  |                             | Polyethylene w/ Integral Side Vent          | 18" X 30" (45.7 x 76.2 cm)                               | 50 / 23            |  |
| 912-1055             | _                  |                             | Polyethylene w/ Integral Side Vent w/ Alarm | 18" X 30" (45.7 x 76.2 cm)                               | 53 / 24            |  |
| 912-0065             | -                  | BN264 with<br>Piggyback     | PSF-Deluxe                                  | 18" X 30" (45,7 x 76,2 cm)                               | 59 / 27            |  |
| 912-0087             |                    | Variable Level              | Premium PSF w/ AFD                          | 18" X 30" (45.7 x 76.2 cm)                               | 64 / 29            |  |
| 912-1087             |                    | Float Switch                | Premium PSF w/ AFD & Alarm                  | 18" X 30" (45.7 × 76.2 cm)                               | 67/30              |  |
| * 912-0115           | 429                |                             | Polyethylene                                | 24" x 24" (61 x 61 cm)                                   | 73 / 33            |  |
| * 912-1115           |                    |                             | Polyethylene w/ Alarm                       | 24" x 24" (61 x 61 cm)                                   | 75 / 34            |  |
| * 912-0080           | _                  |                             | PSF-Deluxe                                  | 24" X 36" (61 x 91.4 cm)                                 | 82/37              |  |
| * 912-1080           | -                  |                             | PSF-Deluxe w/ Alarm                         | 24" X 36" (61 x 91.4 cm)                                 | 85/39              |  |
| 912-0010             | 912-0025           |                             | PSF-Standard                                | 18" X 30" (45.7 x 76.2 cm)                               | 61 / 28            |  |
| 912-1010             | -                  | 1                           | PSF-Standard w/ Alarm                       |  |                    |  |
| 912-0012             |                    |                             | Fiberglass-Standard                         | 18" X 30" (45.7 x 76.2 cm)                               | 64 / 29            |  |
| 912-0063             | -                  |                             | PSF-Deluxe                                  | 18" X 30" (45.7 x 76.2 cm)                               | 74/34              |  |
| 912-0070             | _                  |                             | Polyethylene-w/ Integral Side Vent          | 18" X 30" (45.7 x 76,2 cm)<br>18" X 30" (45.7 x 76,2 cm) | 64 / 29            |  |
| 912-0088             | _                  | M266                        | Premium PSF w/ AFD                          |  | 55 / 25            |  |
| 912-1088             |                    | 1                           | Premium PSF w/ AFD & Alarm                  | 18" X 30" (45.7 x 76.2 cm)                               | 69/31              |  |
| * 912-0116           |                    | -                           | Polyethylene                                | 18" X 30" (45.7 x 76.2 cm)                               | 72 / 33            |  |
| * 912-1116           |                    |                             |   | 24" x 24" (61 x 61 cm)                                   | 76 / 34            |  |
| * 912-0079           |                    |                             | Polyethylene w/ Alarm<br>PSF-Deluxe         | 24" x 24" (61 x 61 cm)                                   | 78 / 35            |  |
|                      | 012 0022           |                             |   | 24" X 36" (61 x 91.4 cm)                                 | 87 / 39            |  |
| 912-0017<br>912-1017 | 912-0033           |                             | PSF-Standard                                | 18" X 30" (45.7 x 76.2 cm)                               | 61 / 28            |  |
| 912-1017             | 0101               |                             | PSF-Standard w/ Alarm                       | 18" X 30" (45.7 x 76.2 cm)                               | 64 / 29            |  |
|                      | 941                |                             | Polyethylene-10' (3 m) stack                | 18" X 30" (45.7 x 76 <sub>*</sub> 2 cm)                  | 67 / 30            |  |
| 912-0019             |                    |                             | Fiberglass-Standard                         | 18" X 30" (45,7 x 76,2 cm)                               | 75 / 34            |  |
| ** 912-0020          | -                  |                             | Fiberglass-10' (3 m) stack, LA code         | 18" X 30" (45.7 x 76.2 cm)                               | 79 / 36            |  |
| 912-0056             | 2000               | DNIGGO                      | Polyethylene w/ Integral Side Vent          | 18" X 30" (45.7 x 76.2 cm)                               | 55 / 25            |  |
| 912-1056             | : <del>***</del> : | BN266 with<br>Piggyback     | Polyethylene w/ Integral Side Vent w/ Alarm | 18" X 30" (45.7 x 76.2 cm)                               | 58 / 26            |  |
| 912-0067             |                    | Variable Level              | PSF-Deluxe                                  | 18" X 30" (45.7 x 76.2 cm)                               | 64 / 29            |  |
| 912-1067             | -                  | Float Switch                | PSF-Deluxe w/ Alarm                         | 18" X 30" (45,7 x 76.2 cm)                               | 67 / 30            |  |
| 912-0089             |                    | 1                           | Premium PSF w/ AFD                          | 18" X 30" (45.7 x 76.2 cm)                               | 69 / 31            |  |
| 912-1089             | -                  |                             | Premium PSF w/ AFD & Alarm                  | 18" X 30" (45,7 x 76,2 cm)                               | 72 / 33            |  |
| * 912-0117           | -                  |                             | Polyethylene                                | 24" x 24" (61 x 61 cm)                                   | 76 / 34            |  |
| * 912-1117           |                    |                             | Polyethylene w/ Alarm                       | 24" x 24" (61 x 61 cm)                                   | 78 / 35            |  |
| * 912-0081           | -                  |                             | PSF-Deluxe                                  | 24" X 36" (61 x 91.4 cm)                                 | 87 / 39            |  |
| * 912-1081           |                    |                             | PSF-Deluxe w/ Alarm                         | 24" X 36" (61 x 91.4 cm)                                 | 90 / 41            |  |

PSF: Polyethylene structural foam AFD: Anli-flotation device Standard: includes a rubber inlet grommet Deluxe: includes a plastic inlet combo hub 24" X 36" (61 x 61 cm) and 24" X 36" (61 x 91.4 cm) shipped individually 4" Cast Iron Hub on LA Code Systems

| Side Discharge<br>Basins P/N | Pump                           | BasinType                  | Basin Size                 | Weight<br>Lbs / Kg |  |
|------------------------------|--------------------------------|----------------------------|----------------------------|--------------------|--|
| 912-0082                     |                                | PSF                        | 18" X 30" (45.7 x 76.2 cm) | 61 / 28            |  |
| 912-1082                     | M264                           | PSF w/ Alarm               | 18" X 30" (45.7 x 76.2 cm) | 66 / 30            |  |
| 912-0090                     | IVI204                         | Premium PSF w/ AFD         | 18" X 30" (45.7 x 76.2 cm) | 72 / 33            |  |
| 912-1090                     |                                | Premium PSF w/ AFD & Alarm | 18" X 30" (45.7 x 76.2 cm) | 72 / 33            |  |
| 912-0083                     | DNIGGA                         | PSF                        | 18" X 30" (45_7 x 76.2 cm) | 62 / 28            |  |
| 912-1083                     | BN264 w/<br>Piggyback          | PSF w/ Alarm               | 18" X 30" (45.7 x 76.2 cm) | 67 / 30            |  |
| 912-0091                     | Variable Level<br>Float Switch | Premium PSF w/ AFD         | 18" X 30" (45.7 x 76.2 cm) | 72 / 33            |  |
| 912-1091                     | Float Switch                   | Premium PSF w/ AFD & Alarm | 18" X 30" (45_7 x 76.2 cm) | 76 / 34            |  |
| 912-0084                     |                                | PSF                        | 18" X 30" (45.7 x 76,2 cm) | 62 / 28            |  |
| 912-1084                     | M266                           | PSF w/ Alarm               | 18" X 30" (45_7 x 76_2 cm) | 67 / 30            |  |
| 912-0092                     | MZGG                           | Premium PSF w/ AFD         | 18" X 30" (45.7 x 76.2 cm) | 73 / 33            |  |
| 912-1092                     |                                | Premium PSF w/ AFD & Alarm | 18" X 30" (45.7 x 76.2 cm) | 76 / 34            |  |
| 912-0085                     | DAIDCC/                        | PSF                        | 18" X 30" (45.7 x 76.2 cm) | 63 / 29            |  |
| 912-1085                     | BN266 w/<br>Piggyback          | PSF w/ Alarm               | 18" X 30" (45.7 x 76.2 cm) | 68 / 30            |  |
| 912-0093                     | Variable Level<br>Float Switch | Premium PSF w/ AFD         | 18" X 30" (45.7 x 76.2 cm) | 73 / 33            |  |
| 912-1093                     | rival Switch                   | Premium PSF w/ AFD & Alarm | 18" X 30" (45.7 x 76.2 cm) | 77 / 35            |  |

PSF: Polyethylene structural foam AFD: Anti-flotation device Standard: includes a rubber inlet grommet

### **PACKAGING**

18" x 30" (45.7 x 76.2 cm) Simplex systems are shipped four units to a skid. 24" x 36" (61 x 91.4 cm) are shipped individually. All units are properly secured with a 2" (DN 50) PVC discharge pipe in the basins to avoid shifting or upsetting the pump and switch mechanism. Float switch is secured with tape that is easily removed through the inlet hub opening. Premium basins have torque stops for prevention of shipping damage to the pump. All other systems are packaged with environment-safe peanuts that are water soluble - no need to remove.

### SYSTEMS INCLUDE

- 2" (50 mm) solids handling pump
- 2" (50 mm) PVC discharge pipe, 30" (76 cm) long (24" [61 cm] long on 24" X 24" [61 x 61 cm]) and (36" [914 cm] long on 24" X 36" [61 x
- Basins polyethylene, poly-foam or fiberglass construction with poly or solid steel covers and 4" pipe seal hub, 4" PVC hub (deluxe) or 4" cast iron hub on L.A. Code Systems
- Check valve options 30-0151, 30-0020, 30-0021, 30-0101 or 30-0103 (not included)
- Systems available with alarms and preinstalled alarm float.
- Premium indoor systems have a split cover for easy pump inspection, torque stops and an anti-flotation device.
- Side discharge systems rated for outdoor burial: solid polyethylene structural foam lid and basin with 2" discharge on side
- 3/16" (5 mm) vent hole drilled
- (1) 2" (50 mm) solids sewage ejector
- (1) 24" x 24" (61 x 61 cm) poly molded basin
- (1) PSF cover with 2V2D

### Your Peace of Mind is Our Top Priority®

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



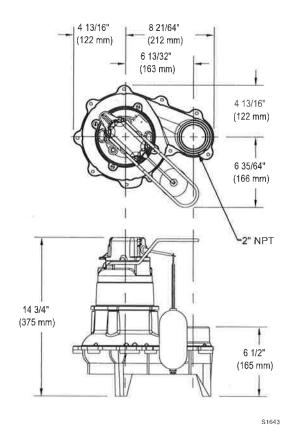
SECTION: 2.20.020 FM2788 0515 Supersedes 0814

## TECHNICAL DATA SHEET WASTE-MATE SERIES

### Model 264 Sewage/Effluent or Dewatering Pumps

### **PRODUCT SPECIFICATIONS**

| NATION AND ADDRESS. | Horse Power          | 4/10  |  |  |
|---------------------|----------------------|---|--|--|
|                     | Voltage              | 115 or 230  |  |  |
| ~                   | Phase                | 1 Ph  |  |  |
| Ö                   | Hertz                | 60 Hz   |  |  |
| MOTOR               | RPM                  | 1725  |  |  |
| Ž                   | Туре                 | Permanent split capacitor   |  |  |
|                     | Insulation           | Class B   |  |  |
|                     | Amps                 | 4.7 - 9.4   |  |  |
|                     | Operation            | Automatic or nonautomatic   |  |  |
|                     | Auto On/Off Points   | 12-1/2" (31.8 cm) / 4-1/2" (11.4 cm)                                      |  |  |
|                     | Discharge Size       | 2" NPT  |  |  |
|                     | Solids Handling      | 2" (50 mm) spherical solids   |  |  |
| <u>_</u>            | Cord Length          | 15' (5 m) standard  |  |  |
| UMP                 | Cord Type            | UL listed cord and plug   |  |  |
| 4                   | Max. Head            | 18' (5.5 m)   |  |  |
|                     | Max. Flow Rate       | 90 GPM (341 LPM)  |  |  |
|                     | Max. Operating Temp. | 130° F (54° C)  |  |  |
|                     | Cooling              | Oil filled  |  |  |
|                     | Motor Protection     | Auto reset thermal overload   |  |  |
|                     | Сар                  | Cast iron   |  |  |
|                     | Motor Housing        | Cast iron   |  |  |
|                     | Pump Housing         | Cast iron   |  |  |
|                     | Base                 | Engineered plastic  |  |  |
| S                   | Upper Bearing        | Sleeve bearing  |  |  |
| 4                   | Lower Bearing        | Sleeve bearing  |  |  |
| MATERIALS           | Mechanical Seals     | Carbon and ceramic  |  |  |
| Ë                   | Impelier Type        | Non-clogging vortex   |  |  |
| 2                   | Impeller             | Engineered plastic  |  |  |
|                     | Hardware             | Stainless steel   |  |  |
|                     | Motor Shaft          | A151 1215 Steel   |  |  |
|                     | Gasket               | Neoprene or Buna-N  |  |  |
|                     | Min. Basin Size      | Simplex: 18" x 30" (45.7 x 76.2 cm)<br>Duplex: 30" x 36" (76.2 x 91.4 cm) |  |  |



NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

NOTE: See model comparison chart for specific details.



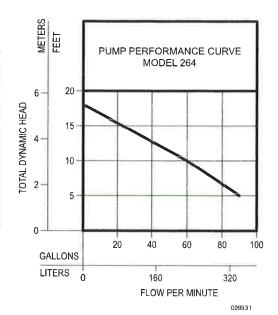






### TOTAL DYNAMIC HEAD FLOW PER MINUTE

| МОІ    | DEL          | 264     |         |  |
|--------|--------------|---------|---------|--|
| Feet   | Meters       | Gallons | Liters  |  |
| 5      | 1.5          | 90      | 341     |  |
| 10     | 3.0          | 60      | 227     |  |
| 15 4.6 |              | 23 87   |         |  |
| Sh     | ut-off Head: | 18 ft ( | (5.5 m) |  |



PUMP FLOW GATED TO 20 GPM MAXIMUM

| Model  |                           | MODEL COMPARISON |     |   |     |      |    |      |      |         |        |
|--------|---------------------------|------------------|-----|---|-----|------|----|------|------|---------|--------|
| Model  | Seal Mode Volts Ph Amps H |                  |     |   |     | HP   | Hz | Lbs  | Kg   | Simplex | Duplex |
| M264   | Single                    | Auto             | 115 | 1 | 9.4 | 4/10 | 60 | 35.5 | 16.0 | 1       | 4      |
| N264   | Single                    | Non              | 115 | 1 | 9.4 | 4/10 | 60 | 34.5 | 15.6 | 2 or 3  | 4      |
| *BN264 | Single                    | Auto             | 115 | 1 | 9.4 | 4/10 | 60 | 40.0 | 18.0 | ***     | ***    |
| D264   | Single                    | Auto             | 230 | 1 | 4.7 | 4/10 | 60 | 35.5 | 16.0 | 1       | 4      |
| E264   | Single                    | Non              | 230 | 1 | 4.7 | 4/10 | 60 | 34.5 | 15.6 | 2 or 3  | 4      |
| *BE264 | Single                    | Auto             | 230 | 1 | 4.7 | 4/10 | 60 | 40.0 | 18.0 |         |        |

<sup>\*</sup>Single piggyback switch included.

Additional cord lengths are available in 25' (8 m) and 35' (11 m). 50' (15 m) cords are available for 230 V units only.

#### **SELECTION GUIDE**

- 1. Integral float-operated mechanical switch, no external control required.
- 2. For automatic use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
- 3. See FM1228 for correct model of simplex control panel.
- 4. See FM0712 for correct model of duplex control panel or FM1663 for a residential alternator system.

### **CONSULT FACTORY FOR SPECIAL APPLICATIONS**

- Electrical alternators for duplex systems available with variable level float switches
- Minimum recommended basin size Simplex - 18"x30" (45.7 x 76.2 cm)
   Duplex - 30"x36" (76.2 x 91.4 cm)
- Standard automatic weight 35.5 lbs. (16.1 kg)
- · High water alarms available
- Mechanical alternators available for duplex systems

ACAUTION Maximum temperature of sewage or dewatering must be limited to 130°F (54°C). For over 130°F (54°C), special quotation required.

 For "M" and "D" models, the approximate volume pumped per cycle are:

Tank Diameter Volume Pumped
18" (45.7 cm) Simplex
24" (61 cm) Simplex
30" (76.2 cm) Duplex
36" (91.4 cm) Duplex
48" (121.9 cm) Duplex
Volume Pumped
8 Gallons (30 liters)
15 Gallons (57 liters)
22 Gallons (83 liters)
33 Gallons (125 liters)
60 Gallons (227 liters)

ACAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

### **TANK ALERT® AB Alarm System**

Easy-to-install liquid level alarm system with auto-reset and battery backup features for indoor use.

This alarm system monitors liquid levels in lift pump chambers, sump pump basins, holding tanks, sewage, agricultural, and other water applications.

The Tank Alert® AB alarm system can serve as a high or low level alarm depending on the float switch model used.

The alarm horn sounds when a potentially threatening liquid level condition occurs. The horn can be silenced, but the alarm light remains on until the condition is remedied. Once the condition is cleared, the alarm will automatically reset.

A green "Power On" light indicates 120 VAC primary power to the alarm. Low battery chirp feature indicates when battery should be replaced.



### **FEATURES**

- NEMA 1 enclosure, designed for ease of installation, rated for indoor use.
- Automatic alarm reset.
- Red "alarm" light and green "power on" light, alarm "test" switch, and horn "silence" switch.
- Alarm horn sounds at 87 decibels at 10 feet (3 meters).
- Can be used with any UL Listed / Recognized switching mechanism rated to include 1 amp, 9 VDC load.
- If primary power fails, the alarm system continues to work due to battery backup feature. (Battery not included.)
- Complete package includes standard SJE SignalMaster® control switch with 15 feet (4.57 meters) of cable (other lengths available) and mounting clamp.
- Switching mechanism operates on low voltage and is isolated from the power line to reduce the possibility of shock.
- Low battery chirp.
- Easy access battery compartment.
- External terminal block for easy float switch installation.
- CSA Certified.
- UL Listed.
- Five-year limited warranty.



### **OPTIONS**

When ordered with the alarm, this system is available with:

- alternate float switch models for high or low level warning.
- auxiliary dry normally open and normally closed contacts. (Tank Alert® AB with auxiliary contacts included is CSA certified only.)
- splice kit.

### **SPECIFICATIONS**

### **VOLTAGE FOR 120 VAC MODEL:**

<u>Primary:</u> 120 VAC, 60 Hz, 2.4 watts max. (alarm condition) <u>Secondary:</u> 9 VDC

BATTERY BACKUP POWER: 9 VDC

**ALARM ENCLOSURE:** 6 x 4 x 2.25 inch (15.24 x 10.16 x 5.71 cm), NEMA 1 plastic.

ALARM HORN: 87 decibels at 10 feet (3 meters)

POWER CORD: 6 foot (1.8 meter)

### FLOAT SWITCH CONNECTION TERMINAL:

For float switch connection only. Do not apply power. (Voltage across terminals is 8-9 VDC).

### FLOAT SWITCH: SJE SignalMaster® control

switch with mounting clamp

Cable: 15 feet (4.57 meters), flexible 18 gauge, 2 conductor (UL) SJOW, water-resistant (CPE)

Float: 2.74 inch diameter x 4.83 inch long (7.0 cm x 12.3 cm), high impact, corrosion resistant polypropylene housing for use in sewage and water up to 140°F (60°C)

### AUXILIARY ALARM CONTACTS (OPTIONAL):

(CSA certified only unit)

Voltage: 120 VAC

Current: 5 amps maximum N/O 3 amps maximum N/C



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email: customer.service@sjerhombus.com

### TANK ALERT® AB Alarm System

Easy-to-install liquid level alarm system with auto-reset and battery backup features for indoor use,

### **ORDERING INFORMATION**

| 120 VAC |   | List     | Shipping  |
|---------|---|----------|-----------|
| Part #  | Description   | Price    | Weight    |
| 1011421 | TA AB-01H (120 VAC w/15' SJE SignalMaster® High Level)                          | \$106.38 | 2.73 lbs. |
| 1011424 | TA AB-01L (120 VAC w/15' SJE SignalMaster® Low Level)                           | \$106.38 | 2.73 lbs. |
| 1011422 | TA AB-01H (120 VAC w/15' Sensor Float® High Level)                              | \$109.93 | 2.81 lbs. |
| 1011423 | TA AB-01X (120 VAC no float)  | \$78.32  | 1.44 lbs. |
| 1012668 | TA AB-01HAUX (120 VAC w/15' SJE SignalMaster® High Level & Auxiliary Contacts)) | \$124.10 | 2.75 lbs  |
| 1021932 | TA AB-01XAUX (120 VAC no float w/Auxiliary Contacts)                            | \$96.04  | 1.46 lbs  |

H = High Level L = Low Level X = No Float AUX = Auxiliary Contacts

MASTER CARTON holds 16 boxed units.

### **OPTIONS**

### **CONTROL SWITCH OPTIONS**

The Tank Alert® AB alarm system comes standard with a 15ft SJE SignalMaster® control switch with mounting clamp. Other float switches are available. See control switch section of the catalog.

To determine the price of alarm with an alternate float, add the price of the part number with "no float" to the price of the float switch.





### **SPECIFICATIONS**

### **VOLTAGE FOR 120 VAC MODEL:**

Primary: 120 VAC, 50/60 Hz, 2.4 watts max. (alarm condition) Secondary: 9 VDC

**BATTERY BACKUP POWER: 9 VDC** 

ALARM ENCLOSURE: 6 x 4 x 2.25 inches (15.24 x 10.16 x 5.71 cm), NEMA 1 plastic

ALARM HORN: 87 decibles at 10 feet (3 meters)

AUXILIARY ALARM CONTACTS (OPTIONAL): 120 VAC, 5 amps max N/O,

3 amp max N/C (CSA certified only unit)

POWER CORD: 6 foot (1.8 meter)

FLOAT SWITCH CONNECTION TERMINAL: for float switch connection only (voltage across terminals is 8-9 VDC)

FLOAT SWITCH: SJE SignalMaster® control switch with mounting clamp

CABLE: 15 feet (4.57 meters), flexible 18 gauge, 2 conductor (UL) SJOW, water resistant (CPE)

FLOAT: 2.74 inch diameter x 4.83 inch long (7.0 cm x 12.3 cm), high impact, corrosion resistant polypropylene housing for use in sewage and water up to 140°F (60°C)

### OTHER INFORMATION

| Option | ption Description   |         |  |  |  |  |
|--------|---|---------|--|--|--|--|
| AUX    | Auxiliary Alarm Contacts<br>(CSA cerified unit,<br>factory installed) | \$17.72 |  |  |  |  |

Call or fax your order! 1-888-DIAL-SJE (1-888-342-5753) Fax 218-847-4617



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